

REMARKS

In the Office Action of April 3, 2002, the office rejected claims 8-13 and 15-17 under 35 U.S.C. 102(b) as being anticipated by DeGroat et al. The office also rejected claim 14 under 35 U.S.C. 103(a) as being unpatentable over DeGroat et al.

Amendments made to the claims

In response to the office action of April 3, 2002, the applicant has amended claim 8 and claim 9.

DeGroat Rejection under 35 U.S.C. §102

Applicant's claims 8-13 and 15-17 stand rejected under 35 U.S.C. 102(b) as being anticipated by DeGroat.

In rejecting claims 8-13 and 15-17, the office stated, "DeGroat et al. discloses a shock-isolation system." (Emphasis added, see page 2, line 12.) The Applicant strenuously disagrees. DeGroat is a contrary teaching to applicant's claims 8-13 and 15-17. DeGroat discloses a vibrational system. DeGroat does not disclose a shock isolation system.

DeGroat's vibrational system is a test station where he subjects a test subject "to determine a driver's tolerance to vibration and ability to be rehabilitated after injury." (Emphasis added, see column 1, lines 7-12 and column 3, lines 15-20.) Thus, DeGroat's

vibration system deliberately subjects an occupant to vibration. Only then will DeGroat be able to determine if his test subject is well enough to go back to work.

DeGroat has absolutely no interest in protecting his test subject since he wants his test subject to be subject to vibrational forces. In contrast, the present invention teaches the exact opposite, namely to protect a console operator from shock forces. Thus applicant's invention seeks to prevent trauma to the user while DeGroat seeks to impart trauma to the user.

A review of DeGroat's specification and claims reveals that he does not even mention the term "shock" much less the term "shock isolation."

In regards to the rejection of applicant's claims 8-13 and 15-17, the applicant has amended independent claim 8 to include "a support structure" wherein a shock mount is:

"located between said support structure and said unitary platform, said shock mount for supporting said unitary platform in a condition where the sole support for the unitary platform is the shock mount so that the unitary platform is free to remain spatially fixed to isolate the unitary platform from the effects of high "g" shocks with the operator station." (Emphasis added.)

Support for the amendments made to independent claim 8 can be found on page 6, lines 20-26; page 7, lines 1-2; page 9, lines 22-25; page 10, lines 1-2 and Figure 1 of the disclosure.

Note applicant's amended independent claim 8 calls for a "shock mount" which operates to "isolate the unitary platform from the effects of high "g" shocks." (Emphasis added.) DeGroat does not teach a shock mount nor does he teach a shock mount which operates to "isolate the unitary platform from the effects of high "g" shocks" in his vehicle vibration simulator since he mounts a vibrator 44 directly on his frame 12. Thus, in contrast to the applicant invention, DeGroat deliberately introduces vibrations to his frame 12.

Although the office, on page 2, lines 14-15, cites DeGroat's reference numerals 10, 16, 18, 34, 36, 38-39, and 40-42 as being shock mounts, the applicant traverses. Nowhere does DeGroat suggest he has shock mounts. DeGroat's reference numeral 10 identifies a base for supporting his frame 12 thereon. (See column 6, lines 16-17.) DeGroat's reference numeral 16 identifies his springs that support his frame 12 and permit the transmission of vibrations from vibrator 46 to his frame 12. (Column 6, line 57-60.) DeGroat's reference numeral 18 identifies a lower sleeve for receiving one end of his spring 16. (Column 6, lines 19-21.) DeGroat's reference numerals 34, 36, 38, and 39 identifies his double acting cylinders which alternately expand and contract to pivot DeGroat's frame 12. (Column 6, lines 40-45.) Finally, DeGroat's reference numerals 40-42 represent his inflatable bladders or pods, which are used to tilt his base 10 in order to simulate "grade, incline and banking of a road surface." (See column 6, lines 49-52.) DeGroat's base 10, springs 16, lower sleeve 18, cylinders 34, 36, 38 and 39, and pods 40-42 do not isolate DeGroat's frame 12 from the effects of high "g" shocks." In contrast, the four cylinders 34, 36, 38 and 39 form a mechanical link between his frame 12 and

base 10 to pivot frame 12 about the x and y axis. Since the cylinders form a mechanical link, it ensures that shock or vibration to his base 10 will be transmitted to his frame 12.

In addition, DeGroat uses vibrators 44 and 46 to:

“provide an occupant of the simulator with exertional and vibrational responses substantially the same as the operator of an actual vehicle would experience when driving the vehicle.” (See column 3, lines 15-20.)

Applicant's amended independent claim 8 also now calls for a shock mount “located between said support structure and said unitary platform, said shock mount for supporting said unitary platform in a condition where the sole support for the unitary platform is the shock mount.” (Emphasis added.) DeGroat does not teach shock mounts located between his base 10 and frame 12, nor does DeGroat teach that his frame 12 is solely supported by a shock mount. Instead, DeGroat's Figure 2 shows his frame 12 supported by his springs 16 and also by his double acting cylinders 34, 36, 38 and 39, both of which are located between his base 10 and frame 12.

In regards to applicant's claim 9, the applicant has amended claim 9 due to informalities. Amended claim 9 calls for the shock isolation system having “a second mounting member for securing the operator station thereto.” (Emphasis added.) DeGroat does not teach his simulator S as having a second mounting member for securing his simulator S thereto.

In regards to applicant's claim 11, claim 11 calls for the shock-system as being “only supported by said shock mount.” DeGroat does not teach his vehicle vibration simulator

as having shock mounts, but instead teaches a base 10, lower sleeve 18, double acting cylinders 34, 36, 38, and 39, and inflatable bladder or pods 42 and 44. DeGroat's base 10, springs 16, lower sleeve 18, cylinders 34, 36, 38 and 39, and pods 40-42 do not isolate DeGroat's frame 12 from the effects of high "g" shocks."

In regards to applicant's claim 12, claim 12 calls for the unitary platform of the shock-isolation system to include "an upright wall with said upright wall including the first mounting member." Page 9, lines 3-4 of applicant's disclosure describes the wall 43 as "for mounting electronic equipment thereto." DeGroat does not teach his frame 12 as having the upright wall of applicant's claim 12.

In regards to applicant's claim 15, claim 15 calls for the shock mount to provide "vibration damping." DeGroat's base 10; springs 16; lower sleeve 18; cylinders 34, 36, 38 and 39; and inflatable bladder or pods 40-42 do not provide vibration damping. To the contrary, in column 3, lines 15-20, DeGroat teaches that his vehicle vibration simulator produces vibrations of "exertional and vibrational response substantially the same as the operator of an actual vehicle would experience when driving the vehicle." (See column 3, lines 15-20.)

In regards to applicant's claim 16, claim 16 calls for "the shock mount simultaneously isolates the operator station and the unitary platform from shock and vibration."

DeGroat does not teach his vehicle vibration simulator as having shock mounts that simultaneously isolates his simulator and his frame 12 from shock and vibration. To the

contrary, DeGroat teaches the use of his springs 16, vibrators 44 and 46, cylinders 34, 36, and 38-39, and pods 40-42 to produce vibration. (Col. 3, lines 15-20.)

Applicant's claim 17 discloses that applicant's "shock mount dampens vibration and shock to minimize the relative motion between the operator station and the operator."

(Emphasis added.) DeGroat does not teach his vehicle vibration simulator as having shock mounts that "dampens vibration and shock to minimize the relative motion between the operator station and the operator." To the contrary, as previously mentioned, DeGroat teaches the use of his springs 16, vibrators 44 and 46, cylinders 34, 36, and 38-39, and pods 40-42 to produce vibration. (Col. 3, lines 15-20.)

It is for the above that the applicant submits that claims 8-13 and 15-17 are not anticipated by the reference of DeGroat et al.

DeGroat Rejection under 35 U.S.C. §103

Applicant's claim 14 stands rejected under 35 U.S.C. 103(a) as being unpatentable over DeGroat. In rejecting claim 14 the office held that:

"However, DeGroat et al. does not disclose that the unitary platform has a surface area of about 20 to 30 square feet. It is common knowledge in the prior art to have made a platform with a surface area of about 20 to 30 feet for the purpose of supporting various objects thereon. It would have been obvious for one of ordinary skill in the art at the time the invention was made to have made the De Groat et al. platform with a surface area about 20 to 30 feet in order to support a larger size operator station and other various sized structures." (See page 3, lines 11-16 of the office action)

In regards to the above, the office has not provided the applicant with any evidence that it would have been obvious to one of ordinary skill in the art at the time the invention was made to form a unitary platform having "a surface area of about 20 to 30 square feet." It is for this reason that the applicant respectfully traverse the above and respectfully request that the office provide cited reference in support of the office's position.

In further regards to applicant's claims 9-17, claims 9-17 each add additional limitations to applicant's amended independent claim 8. Since amended claim 8 is patentable for the reasons given above, applicant submits that dependent claims 9-17 are also patentable.

In view of the above, it is submitted that the application is in condition for allowance. Allowance of claims 8-17 as amended, is requested. Applicant has enclosed with this response a marked-up version of the amendment showing the changes made.



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VERSION OF AMENDMENTS SHOWING MARKINGS

In the Claims

Please amend the claims as follows:

8. (Twice Amended) A shock-isolation system for isolation of shocks from a supporting structure] comprising:

a support structure;

a unitary platform, said unitary platform having an operator station thereon;

a first mounting member for rigidly securing a console to said unitary platform;

a shock mount, said shock mount located between said support structure and said unitary platform, said shock mount for supporting said unitary platform in a condition where the sole support for the unitary platform is the shock mount so that the unitary platform is free to remain spatially fixed to isolate the unitary platform from the effects of high "g" shocks with the operator station and the unitary platform further inhibiting opportunity for operator injury by simultaneously preventing the operator station and the unitary platform from moving relative to one another.

9. The shock-isolation system of claim 8 including a second mounting member for securing the [operate] operator station thereto.

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Respectfully submitted,
JACOBSON AND JOHNSON

By *Carl L. Johnson*

Carl L. Johnson, Reg. No. 24,273

Attorneys for Applicant
Suite 285

One West Water Street
St. Paul, Minnesota 55107-2080

Telephone: 651-222-3775

Fax: 651-222-3776

CLJ/cj